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Usual and unusual suspects

What network analysis can tell us about climate policy integration

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Key messages

- Understanding adaptation-mitigation linkages helps identify co-benefits and reduce negative interactions between the two climate change domains.
- Barriers include working in institutional siloes and lack of information: adaptation actors are not well-informed about mitigation actions and vice-versa.
- Policy network analysis sheds light on adaptation-mitigation actor interactions and what can be done to improve them.
- It reveals both the usual and unusual suspects who can foster linkages between the two domains.
- This InfoBrief summarizes the findings of a climate change policy network analysis conducted in Peru and published in the journal Climate Policy (Locatelli et al. 2020).

Introduction

In one of the key scenes of the legendary film Casablanca (1942), Captain Louis Renault orders his police officers to "round up the usual suspects" instead of arresting the culprit, Rick Blaine. Those of us concerned with climate change are frequently doing the same. Even though policy action on both adaptation and mitigation is not a crime, we tend to think in terms of 'usual suspects' when we look for the climate champions or for those holding the key to change. We tend to ignore the 'unusual suspects', the ones that are invisible or unheard but that can make or break climate action (see Figure 1).

Why do we need both adaptation and mitigation? Temperatures are already 1.3 °C degrees warmer than in the pre-industrial period and the world is on track for at least 3 °C of global warming (Lenton et al. 2019). Adaptation is a necessity, as is strong mitigation action, and these two essential strategies for fighting climate change are interlinked. This is especially evident in the land-use sectors. For example, forests and agricultural systems are vulnerable to climate change but they can also help people adapt. At the same time, they are important sinks and sources of greenhouse gases.

A particular climate action related to land use can produce co-benefits for adaptation, mitigation and sustainable development, but can also have unintended consequences (Locatelli et al. 2015). The integration of climate change adaptation and mitigation policy objectives and processes helps to identify these mutually beneficial practices and reduce the negative interactions. It means including joint adaptation and mitigation objectives in intervention design where this makes sense, and ensuring that policy actors interested in either adaptation or mitigation coordinate among themselves (Di Gregorio et al. 2017). This is needed in addition to mainstreaming climate change into the policy processes of other sectors.

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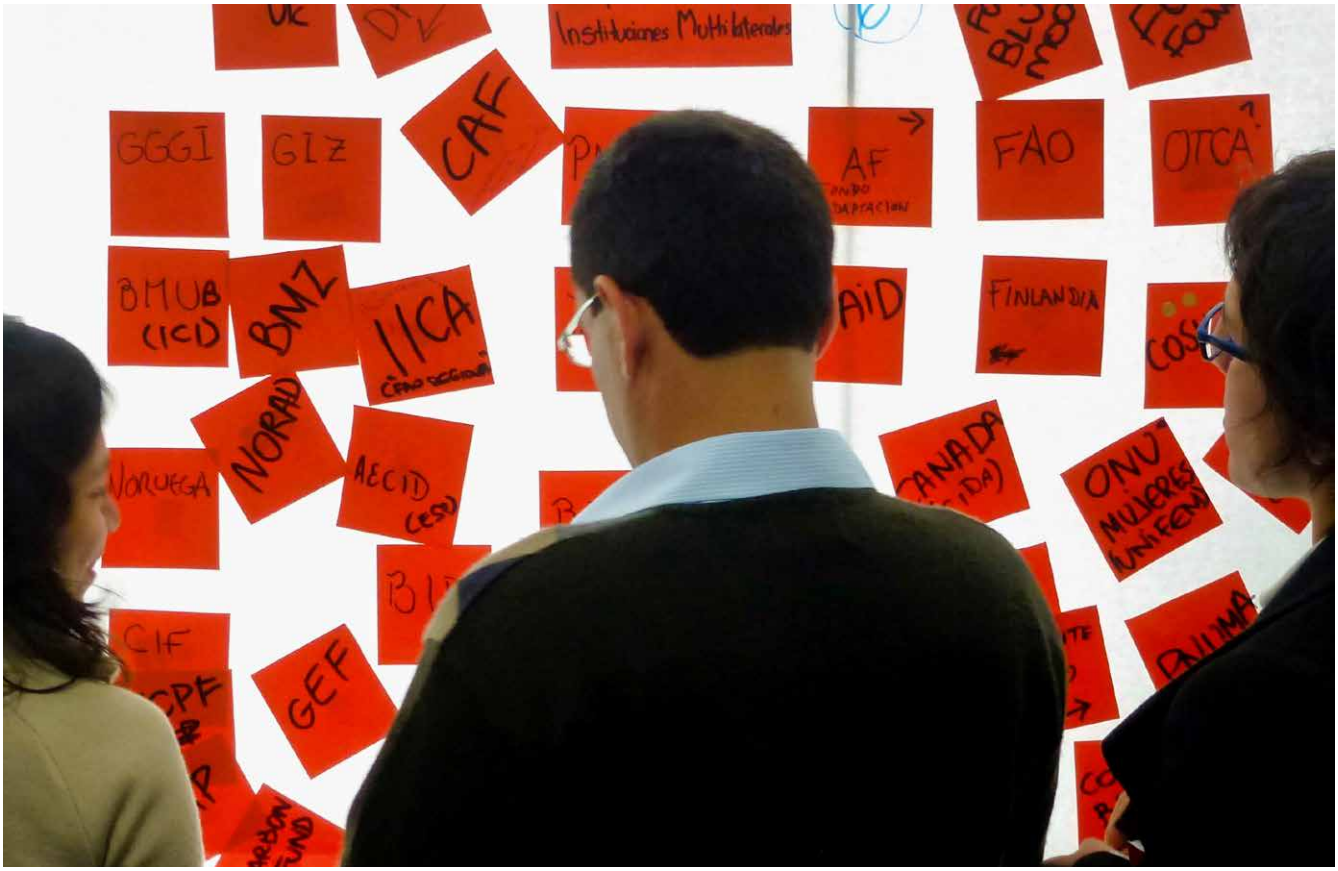

Figure 1. Workshop on climate change policy networks in Lima, Peru, where participants were tasked with identifying the usual and unusual suspects (photo by Bruno Locatelli).

The first step would be to facilitate communication and coordination between the policy actors that engage in climate change adaptation and mitigation policy processes. This, however, is quite difficult. National policies and programs usually target only one strategy – either adaptation or mitigation – and decision-makers tend to work within their sectoral silos. People who engage with adaptation are often not fully informed about mitigation processes and vice versa.

Institutional barriers separating the adaptation and mitigation domains, differences in knowledge about adaptation and mitigation needs, and low capacity for coordination are challenges that characterize climate policy processes. Policy network analysis can reveal some of the barriers to, and provide insights on possible opportunities for, better actor communication and coordination. It can reveal which policy actors are in a better position to connect the adaptation and mitigation policy domains (both usual and unusual suspects).

This brief summarizes the results of a policy network analysis conducted in Peru and published in the journal *Climate Policy* (Locatelli et al. 2020).

Why policy network analysis?

Climate change policy networks involve state and non-state actors from different sectors and levels, each aiming to influence ongoing policy processes and outcomes. Policy network analysis builds on social network analysis; it investigates how relevant actors interact in order to reveal those social patterns, resource interdependencies and power relations through which climate policy is elaborated and implemented (Brockhaus et al. 2014). It also reveals who the dominant and the more isolated actors are, the mediators that can foster new collaborations or relationships between different groups (also known as 'brokers'), and the network structures that can enable or limit them.

This information can be valuable for understanding malfunctions and for designing strategies that can enhance institutional networking. In the case of isolated actors, for example, strategies for building interorganizational relations can be devised, as they are an important aspect of climate change governance. The complexity of climate governance requires managing diverse interests and resolving conflicts across multiple sectors and policy actors, from the local to the

international levels. Working toward climate policy integration necessitates: (i) understanding whether adaptation and mitigation policy processes are connected or not, and if they are connected, determining how they are connected; and (ii) understanding how the climate change policy arena is structured.

Adaptation–mitigation interactions in the policy network

To document the interactions in Peru among and between actors involved with adaptation and actors involved with mitigation, we conducted a survey and semistructured interviews with representatives of 76 different organizations engaged with national-level policy processes. We asked the representatives to indicate the actors with which their organization regularly exchanged information on adaptation and with which it has collaborated. We asked the same questions concerning mitigation, in addition to asking which organizations they perceived as particularly influential in adaptation policy processes, and which in the mitigation ones.

We thus had six different relations to analyze: information exchange on (i) adaptation or (ii) mitigation; collaboration on (iii) adaptation or (iv) mitigation issues; and perceived influence in (v) the adaptation domain or (vi) the mitigation domain. The two adaptation and mitigation domains represented different 'layers' in our climate change policy network, which we constructed as a 'multilayer network' (Dickison 2016). We explored each layer separately and in an integrated way; we examined interlayer dynamics to find our suspects, that is, which organizations broker relationships within and across the two domains of adaptation and mitigation.

In a multilayer network, policy actors are connected through more than one relation; for example, an organization can be tied to another by communication flows, by joint projects or by both. In our case, policy actors are tied by information exchange and collaboration related to adaptation and/or mitigation. In a stylized fictitious example (Figure 2), actors are represented by purple dots and are tied by blue lines (information or collaboration ties) in two layers: adaptation and mitigation.

The same actors are present in both adaptation and mitigation layers, as they are all engaged with climate change policy processes. Some might be inactive in one of the two layers; for example, nongovernment organization (NGO) "A" does not interact with any other entities on adaptation issues. Ministry "B" is a central actor in adaptation and also an important broker, connecting many actors that might otherwise remain unconnected in this layer. Ministry "B" is also a broker within the mitigation layer and between the two layers. Whereas NGO "A", Ministry "B" and Regional Government "C" are brokers in mitigation, Figure 2 shows that they play different roles in connecting actors between layers: "A" does not play any role, whereas "B" and "C" do, even though "C" is not a broker in adaptation.

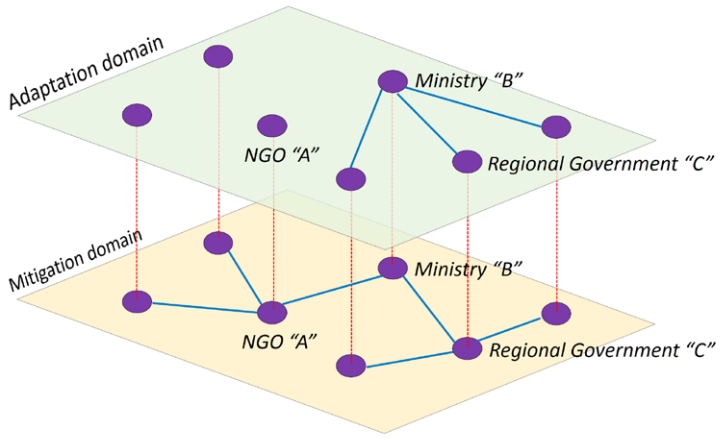

Figure 2. Stylized multilayer network. The same actors are present in each layer, with the blue lines showing their interactions with other actors. Each red vertical line connects the same actor in the two domain layers of adaptation and mitigation.

Actors and connections

In the Peruvian climate change policy network, there were more connections between actors in the mitigation layer (higher density), as compared with the adaptation one, which shows that there was more activity in the mitigation domain at the time of the interviews. We expected this result given that, historically, mitigation has attracted more international attention and resources than adaptation. Furthermore, in our network, if an actor showed high reputational power in the mitigation layer, this increased the probability of other actors forming ties with that actor in both layers (and not only in the mitigation one).

Similarly, one of the few other studies that look at the interactions between adaptation and mitigation policy processes demonstrated higher activity in the mitigation domain in Brazil and Indonesia (Di Gregorio et al. 2019).

The usual suspects in national climate policy processes – national government organizations, foreign agencies and intergovernmental organizations – were the most central in both the adaptation and mitigation layers of our case study. A central actor in our study means that many other actors have indicated relational ties with this particular actor (the higher the centrality, the bigger the circle in the representation of Figure 3). As a group, national government organizations topped this type of centrality, indicating national ownership of the climate change agenda in Peru, as well as a good level of institutionalization of climate change responses.

The least-connected actors in both levels were big private-sector companies and subnational civil society organizations (CSOs), indicating an isolation of groups that matter for the implementation of adaptation and mitigation measures. However, not all isolated actors have the same role and resources and there are major power asymmetries between them.

The big private-sector companies might appear to be isolated because they do not currently prioritize climate change issues (and thus do not want to engage with them), because they do in fact interact with central actors but invisibly, or because they do not need to act at all (as their interests are automatically taken into account due to their power and general access to politicians). The isolation of smaller CSOs, on the other hand, reflects the typical distribution of power in society. This is problematic because engagement with CSOs, and especially local CSOs, is highly important for ensuring that climate change measures are environmentally and socially just.

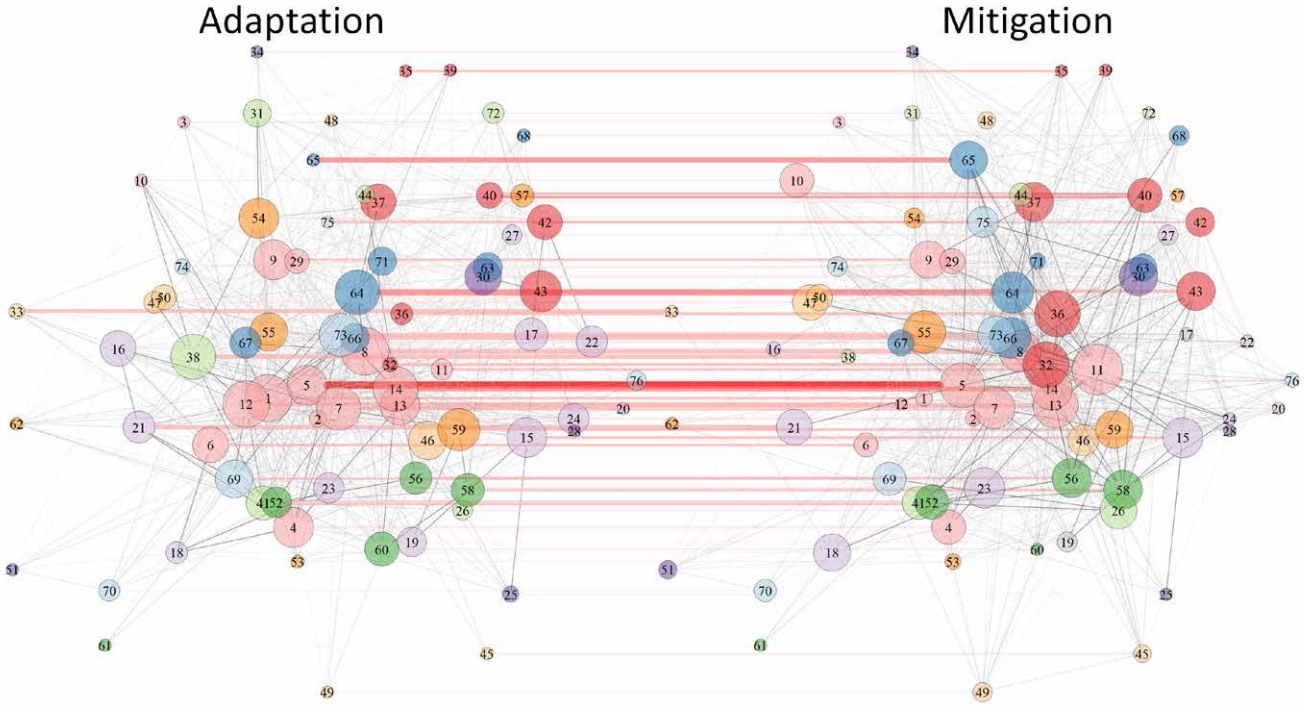

Figure 3. Representation of the climate change policy network in Peru, with the two layers containing information and collaboration exchanges on adaptation (left) and on mitigation (right), and the coupling ties in between. Circles represent actors. Circle colors represent organization types (e.g., national government or international NGOs; see Locatelli et al. 2020, for details).

We found many organizations from different groups to be well-positioned in the network for brokering relationships between the two layers of adaptation and mitigation. The usual suspects were rounded up: actors with mandates that span across both domains and with high centrality and brokerage in both layers. Indeed, many top interlayer brokers were national government actors and international organizations that had a good brokerage position in both adaptation and mitigation, or at least in one of the two layers. But there were some unusual suspects as well that were also in good brokerage positions.

These unusual suspects, for example a regional government organization and a producers' association, were not brokers in any of the two layers separately, and nor did they exhibit a notably high centrality in one or both layers. Despite their low profile in the adaptation and mitigation domains, they appeared very important as mediators across the adaptation and mitigation layers because they were the only potential links between several actors that might otherwise remain unconnected.

Contrary to this, some actors with high centrality in both layers, and a mandate to work with and connect multiple actors (e.g. a foreign agency with a large portfolio of climate activities in Peru), were surprisingly absent from the top ranks of interlayer brokers. Our suspicions about several usual suspects were thus not confirmed. Our usual suspects might have ended with a low brokerage score as a result of their success: they built ties and triggered other actors to form direct ties, and consequently, their brokerage was not needed anymore (Burt 2009).

Rounding up all suspects

Policy network analysis is a relevant approach for assessing the integration of policy processes. This approach can help identify all the actors that can foster linkages between domains, as well as the structures of power that can support or hinder more effective and just implementation of climate policies and measures. For example, supporting the actors that play a critical role in bridging adaptation and mitigation is often needed to further sustain and strengthen the linkages between the domains. This might mean providing better access to some of the unusual suspects in formal climate change bodies or processes. It might also mean bringing the activities of some actors to the forefront, so that their role and contributions are better understood, and so they can be held accountable for their actions by those with less power.

Policy network studies such as ours provide a snapshot of what is happening in climate change policy arenas at a particular point in time. But if redone periodically, they can help us understand how network structure and power evolve in climate governance and whether or not climate policy integration improves over time.

Recommendations

- National government organizations can facilitate communication and coordination among actors involved in climate change policies and processes due to their centrality.
- They can activate institutional structures or coordination bodies that include and support isolated actors (e.g. subnational organizations) or actors who can reach out to many others (e.g. brokers).
- These bodies should first encourage actors to share information about activities and other knowledge, but without causing coordination fatigue or high transaction costs.
- Actors in good positions to broker relationships between organizations will need incentives and support to actually engage in doing so.

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